



EG&amp;G ROCKY FLATS, INC.

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July 26, 1994

94-RF-07963

J. L. Pepe  
Environmental Restoration Division  
DOE/RFFO

LOGIC FLOW FOR INSTALLATION OF MONITORING WELLS AT OPERABLE  
UNIT 11 - KKO-030-94

The purpose of this correspondence is to transmit a flowchart for the Operable Unit (OU) 11 RCRA [Resource Conservation and Recovery Act] Facilities Investigation/Remedial Investigation (RFI/RI) developed during a meeting held July 15, 1994 with representatives from EG&G Rocky Flats, Inc. and EG&G's subcontractors working on the OU 11 RFI/RI project. The purpose of the meeting was to develop a decision flowchart to ensure that field decisions are made that will accomplished the Data Quality Objectives (DQOs) set forth in the Technical Memorandum Field Sampling Plan (FSP) for OU 11. The flowchart that was developed is attached to this memorandum.

Determinations need to be made as to the depth that each monitoring well screen should be set in order to accomplish the OU 11 DQOs. Each borehole will be drilled to the depth where perched conditions appear to exist, cased to that depth, and covered to prevent rainwater from getting into the hole. Based on previous field observations, perched water conditions are defined as a clay layer with soils exhibiting a moisture content above 10%. The hole will remain covered and cased for several days. Meanwhile, additional wells will be drilled using this same procedure. After several days have passed, the first hole will then be examined for the presence of water. If water is present in the borehole, a monitoring well will be installed within the borehole to monitor water at the perched interval. If water is not present, the borehole will be advanced to the saturated zone and a monitoring well will be installed. The remaining boreholes/monitoring wells will be drilled in this same manner. The attached flowchart describes the monitoring well logic flow.

The logic behind the monitoring well scheme described above is based upon fulfilling the DQOs of the OU 11 FSP, which ensure that data gaps will be filled. Data gaps currently exist at OU 11 in the upper portion of the saturated zone [the Upper Hydrostratigraphic Unit (UHSU)] of the Rocky Flats Alluvium and in portions of the UHSU that have the potential to contain perched water. Existing monitoring wells at OU 11 that are screened throughout the UHSU (i.e. screened through both perched water and the water table) may have higher levels of contamination than those that are only screened in the lower sections of the UHSU. Currently, there are no monitoring wells at OU 11 that screen water within a perched zone. The monitoring well design mentioned above will fill in the data gap in the upper portion of the UHSU and will enable determinations concerning perched water contamination to be made. The monitoring well flowchart and plan developed in the July 15 meeting for screening of monitoring wells is consistent with and will ensure that fieldwork meets the DQOs of the OU 11 FSP TM.

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SON, J.M.		
rose, A.L.	X	
hughes, K.	X	
rus, S.	X	
BOGGS, D.	X	
chubb, D.	X	
RES CONTROL	X	X
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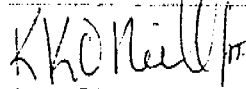
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J. L. Pepe  
July 25, 1994  
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The attached flowchart provides an effort to ensure consistency when making field decisions that will support the DQO goals and will facilitate a more concise RFI/RI Report. If you have any questions concerning this memorandum or the attached flowchart, please do not hesitate to call me at the above extension.

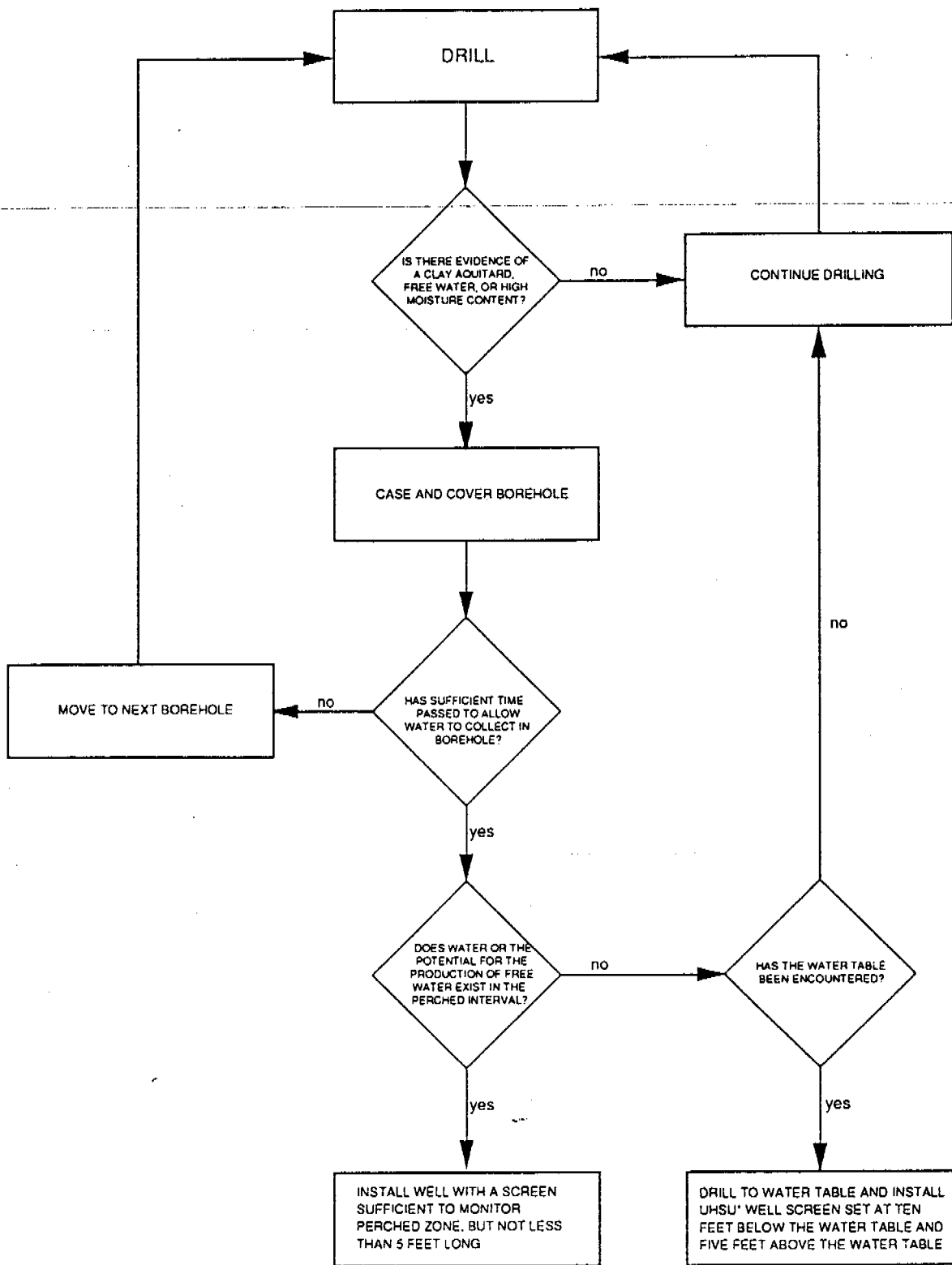


Kelly O'Neill  
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Environmental Restoration Programs Division

KKO:tjr

Orig. and 1 cc – J. L. Pepe

# OPERABLE UNIT 11 MONITORING WELL DECISION FLOWCHART



\*UHSU = UPPER HYDROSTRATIGRAPHIC UNIT